The Society of Thoracic Surgeons

Adult Cardiac Surgery Database

Data Collection Form Version 2.9

7/2017

A. Administrative

Participant ID:	Record ID: (software generated)	STS Cost Link:
Patient ID: (software generated)		

Patient participating in STS-related clinical trial:
☐ None ☐ Trial 1 ☐ Trial 2 ☐ Trial 3 ☐ Trial 4 ☐ Trial 5 ☐ Trial 6 (If not "None" →) Clinical trial patient ID:_____

B. Demographics

Patient Last Name:	Patient First Name:	Patient Middle Name:
Date of Birth: __ __/__ __/__ __ __ __ (mm/dd/yyyy)	Patient Age: _____	Sex: ☐ Male ☐ Female

National Identification (Social Security)Number Known: ☐ Yes ☐ No ☐ Refused (If Yes →) National ID Number: _____

Medical Record Number:

Street Address:	City:	
Region:	ZIP Code:	Country:

Is This Patient's Permanent Address: ☐ Yes ☐ No ☐ Unknown

Is the Patient's Race Documented? ☐ Yes ☐ No ☐ Pt. Declined to Disclose

(If Yes →) Race : (Select all that apply→)

White:	☐ Yes	☐ No	Am Indian/Alaskan:	☐ Yes	☐ No
Black/African American:	☐ Yes	☐ No	Hawaiian/Pacific Islander	☐ Yes	☐ No
Asian:	☐ Yes	☐ No	Other:	☐ Yes	☐ No

Hispanic, Latino or Spanish Ethnicity: ☐ Yes ☐ No ☐ Not Documented

C. Hospitalization

Hospital Name: _____ (If Not Missing →) Hospital ZIP Code: Hospital Region:
Hospital National Provider Identifier: _____ Hospital CMS Certification Number: _ _ _ _ _ _

Primary Payor: (Choose one)	(If Primary Payor <>None/Self ↓) Secondary Payor: (Choose one)
☐ None/Self	☐ None
☐ Medicare (includes commercially managed options)	☐ Medicare
☐ Medicaid (includes commercially managed options)	☐ Medicaid
☐ Military Health	☐ Military Health
☐ Indian Health Service	☐ Indian Health Service
☐ Correctional Facility	☐ Correctional Facility
☐ State Specific Plan	☐ State Specific Plan
☐ Other Government Insurance	☐ Other Government Insurance
☐ Commercial Health Insurance	☐ Commercial Health Insurance
☐ Health Maintenance Organization	☐ Health Maintenance Organization
☐ Non -U.S. Plan	☐ Non -U.S. Plan
☐ Charitable care/ Foundation Funding	☐ Charitable care/ Foundation Funding
(if Medicare →) Primary Payor Medicare Fee for Service: ☐Yes ☐ No	(if Medicare →) Secondary Payor Medicare Fee for Service: ☐ Yes ☐ No
Admit Date:__ __/__ __/__ __ __ __ (mm/dd/yyyy)	Date of Surgery: __ __/__ __/__ __ ____ (mm/dd/yyyy)

Admit Source: ☐ Elective Admission ☐ Emergency Department ☐ Transfer in from another hospital/acute care facility ☐Other

(If Transfer →) Other Hospital Performs Cardiac Surgery ☐ Yes ☐ No

D. Risk Factors

"Unknown" should only be selected if Patient / Family unable to provide history

Did the patient have a laboratory confirmed diagnosis of Covid-19? ☐ No (Harvest Code 10)
☐ Yes, prior to hospitalization for this surgery (Harvest Code 11)
☐ Yes, in hospital prior to surgery (Harvest Code 12)
☐ Yes, in hospital after surgery (Harvest Code 13)
☐ Yes, after discharge within 30 days of surgery (Harvest Code 14)

Date of Positive Covid-19 Test (closest to OR date) _____/_____/_____ (mm/dd/yyyy)

Height (cm): _____	Weight (kg): _____
Family History of Premature Coronary Artery Disease: ☐ Yes ☐ No ☐ Unknown	
Diabetes: ☐ Yes ☐ No ☐ Unknown (If Yes →) Diabetes-Control: ☐ None ☐ Diet only ☐ Oral ☐ Insulin ☐ Other SubQ ☐ Other ☐ Unknown	
Dyslipidemia: ☐ Yes ☐ No ☐ Unknown	Dialysis: ☐ Yes ☐ No ☐ Unknown Hypertension: ☐ Yes ☐ No ☐ Unknown
Endocarditis: ☐ Yes ☐ No (If Yes→) Endocarditis Type: ☐ Treated ☐ Active (If Endocarditis Yes→) Endocarditis Culture: ☐ Culture negative ☐ Strep species ☐ MRSA ☐ MSSA ☐ Coagulase negative staph ☐ Enterococcus species ☐ Gram negative species ☐ Polymicrobial ☐ Mycobacterium (chimera) ☐Fungal ☐ Other ☐Unknown	
Tobacco use: ☐ Never smoker ☐ Current every day smoker ☐ Current some day smoker ☐ Smoker, current status (frequency) unknown ☐ Former smoker ☐ Smoking status unknown	
Lung Disease: ☐ No ☐ Mild ☐ Moderate ☐ Severe ☐ Lung disease documented, severity unknown ☐ Unknown (If Mild, Moderate or Severe→) Type: ☐ Obstructive ☐ Reactive ☐ Interstitial Fibrosis ☐ Restrictive ☐ Other ☐ Multiple ☐ Not Documented Pulmonary Function Test Done: ☐ Yes ☐ No (If Yes →) FEV1 % Predicted: _____ DLCO Test Performed: ☐ Yes ☐ No (If Yes →) DLCO % Predicted: _____ Room Air ABG Performed: ☐ Yes ☐ No (If Yes →) Carbon Dioxide Level:_____ Oxygen Level : _____	
Home Oxygen: ☐ Yes, PRN ☐ Yes, oxygen dependent ☐ No ☐ Unknown	Inhaled Medication or Oral Bronchodilator Therapy: ☐ Yes ☐ No ☐ Unknown
Sleep Apnea: ☐ Yes ☐ No ☐ Unknown	Pneumonia: ☐ Recent ☐ Remote ☐ No ☐ Unknown
Illicit Drug Use: ☐ Recent ☐ Remote ☐ No ☐ Unknown	Depression ☐ Yes ☐ No ☐ Unknown
Alcohol Use: ☐ <=1 drink/week ☐ 2- 7 drinks/week ☐ >=8 drinks/week ☐ None ☐ Unknown	
Liver Disease: ☐ Yes ☐ No ☐ Unknown (If Yes →) Child –Pugh Class ☐ A ☐ B ☐ C ☐ Unknown Listed for liver transplant: ☐ Yes ☐ No Status post liver transplant: ☐ Yes ☐ No	
Immunocompromise Present: ☐ Yes ☐ No ☐ Unknown	Mediastinal Radiation: ☐ Yes ☐ No ☐ Unknown
Cancer Within 5 Years: ☐ Yes ☐ No ☐ Unknown	Peripheral Artery Disease: ☐ Yes ☐ No ☐ Unknown
Thoracic Aorta Disease: ☐ Yes ☐ No ☐ Unknown	Syncope: ☐ Yes ☐ No ☐ Unknown
Unresponsive State: ☐ Yes ☐ No	Chest wall Deformity: ☐ Yes ☐ No ☐ Unknown
Cerebrovascular Disease: ☐ Yes ☐ No ☐ Unknown (If Yes→) Prior CVA: ☐ Yes ☐ No ☐ Unknown (If Yes →) Prior CVA-When: ☐ <= 30 days ☐ > 30 days CVD TIA: ☐ Yes ☐ No ☐ Unknown CVD Carotid stenosis: ☐ Right ☐ Left ☐ Both ☐ None ☐ Not Documented (If "Right" or "Both" →) Severity of stenosis on the right carotid artery: ☐ 50-79% ☐ 80 – 99% ☐ 100% ☐ Not documented (If "Left" or "Both" →) Severity of stenosis on the left carotid artery: ☐ 50-79% ☐ 80 – 99% ☐ 100% ☐ Not documented History of previous carotid artery surgery and/or stenting: ☐ Yes ☐ No	

Enter available lab results below. Not all tests are expected or appropriate for all patients. Data Quality Report will flag missing Creatinine or if both Hemoglobin & Hematocrit are missing. if Liver disease is present, Creatinine, Bilirubin and INR are expected

WBC Count: _____	Hemoglobin: _____	Hematocrit: _____	Platelet Count: _____
Last Creatinine Level: _____	Total Albumin:_____	Total Bilirubin: _____	A1c Level: _____
HIT Antibodies ☐ Yes ☐ No ☐ Not Applicable	INR: _____	MELD Score: _____ (System Calculation)	BNP _____
Five Meter Walk Test Done: ☐ Yes ☐ No ☐ Non-ambulatory patient			
(If Yes →)	Time 1: _ _ _._ _ (seconds)	Time 2: _ _ _._ _ (seconds)	Time 3 : _ _ _._ _ (seconds)
Six Minute Walk test done: ☐ Yes ☐ No (If Yes →)	Total Distance : _____ feet		

E. Previous Cardiac Interventions

Previous Cardiac Interventions: ☐ Yes ☐ No ☐ Unknown

(If Yes →) Previous coronary artery bypass (CAB): ☐ Yes ☐ No

Previous valve procedure: ☐ Yes ☐ No If PrValve Yes, Enter at least one previous valve procedure and up to 5 ↓

	#1	#2	#3	#4	#5
No additional valve procedure(s)					
Aortic valve balloon valvotomy/valvuloplasty					
Aortic valve repair, surgical					
Aortic valve replacement, surgical					
Aortic valve replacement, transcatheter					
Mitral valve balloon valvotomy/valvuloplasty					
Mitral valve commissurotomy, surgical					
Mitral valve repair, percutaneous					
Mitral valve repair, surgical					
Mitral valve replacement, surgical					
Mitral valve replacement, transcatheter					

Tricuspid valve balloon valvotomy/valvuloplasty						
Tricuspid valve repair, percutaneous						
Tricuspid valve repair, surgical						
Tricuspid valve replacement, surgical						
Tricuspid valve replacement, transcatheter						
Tricuspid valvectomy						
Pulmonary valve balloon valvotomy/valvuloplasty						
Pulmonary valve repair, surgical						
Pulmonary valve replacement, surgical						
Pulmonary valve replacement, transcatheter						
Pulmonary valvectomy						
Other valve procedure						

Previous PCI: ☐ Yes ☐ No

(If Yes →) PCI Performed Within This Episode Of Care: ☐ Yes, at this facility ☐ Yes, at some other acute care facility ☐ No (If "Yes, at this facility" or "Yes, at some other acute care facility" ↓)

Indication for Surgery: ☐ PCI Complication ☐ PCI Failure without Clinical Deterioration ☐ PCI Failure with Clinical Deterioration ☐ PCI/Surgery Staged (not STEMI) ☐ PCI for STEMI, multivessel disease ☐ Other

PCI Stent: ☐ Yes ☐ No (If Yes →) Stent Type: ☐ Bare metal ☐ Drug-eluting ☐ Bioresorbable ☐Multiple ☐Unknown

PCI Interval: ☐ <= 6 Hours ☐ > 6 Hours

Other Previous Cardiac Interventions: ☐ Yes ☐ No (If Yes, Enter at least one previous other cardiac procedure and up to 7 ↓)

	#1	#2	#3	#4	#5	#6	#7
No additional interventions							
Ablation, catheter, atrial fibrillation							
Ablation, catheter, other or unknown							
Ablation, catheter, ventricular							
Ablation, surgical, atrial fibrillation							
Ablation, surgical, other or unknown							
Aneurysmectomy, LV							
Aortic procedure, arch							
Aortic procedure, ascending							
Aortic procedure, descending							
Aortic procedure, root							
Aortic procedure, thoracoabdominal							
Aortic Procedure, TEVAR							
Aortic root procedure, valve sparing							
Atrial appendage obliteration, Left, surgical							
Atrial appendage obliteration, Left, transcatheter							
Cardiac Tumor							
Cardioversion(s)							
Closure device, atrial septal defect							
Closure device, ventricular septal defect							
Congenital cardiac repair, surgical							
ECMO							
Implantable Cardioverter Defibrillator (ICD) with or without pacemaker							
Pacemaker							
Pericardial window/Pericardiocentesis							
Pericardiectomy							
Pulmonary Thromboembolectomy							
Total Artificial Heart (TAH)							
Transmyocardial Laser Revascularization (TMR)							
Transplant heart & lung							
Transplant, heart							
Transplant, lung(s)							
Ventricular Assist Device (VAD), BiVAD							
Ventricular Assist Device (VAD), left							
Ventricular Assist Device (VAD), right							
Other Cardiac Intervention (not listed)							

F. Preoperative Cardiac Status

Prior Myocardial Infarction: ☐ Yes ☐ No ☐ Unknown (If Yes ↓)
MI When: ☐ <=6 Hrs. ☐ >6 Hrs. but <24 Hrs. ☐ 1 to 7 Days ☐ 8 to 21 Days ☐ >21 Days

Cardiac Presentation/Symptoms: (Choose one from the list below for each column↓)

	At time of this admission:	At time of surgery:
No Symptoms		
Stable Angina		
Unstable Angina		
Non-ST Elevation MI (Non-STEMI)		
ST Elevation MI (STEMI)		
Angina Equivalent		
Other		

Heart Failure: ☐ Yes ☐ No ☐ Unknown (If Yes→) Timing: ☐ Acute ☐ Chronic ☐ Both Type: ☐ Systolic ☐ Diastolic ☐ Both ☐ Unavailable
Classification-NYHA: ☐ Class I ☐ Class II ☐ Class III ☐ Class IV ☐ Not Documented

Cardiogenic Shock : ☐ Yes, at the time of the procedure ☐ Yes, not at the time of the procedure but within prior 24 hours ☐ No

Resuscitation: ☐ Yes - Within 1 hour of the start of the procedure ☐ Yes - More than 1 hour but less than 24 hours of the start of the procedure ☐ No

Arrhythmia: ☐ Yes ☐ No

(If Arrhythmia = Yes →) Permanently Paced Rhythm: ☐ Yes ☐ No

(If Yes , choose one response below for each rhythm →)	VTach/VFib	Sick Sinus	AFlutter	AFibrillation	Second Degree Heart Block	Third Degree Heart Block
None						
Remote (> 30 days preop)						
Recent (<= 30 days preop)						

(If AFibrillation not 'None' →) Atrial Fibrillation Type: ☐ Paroxysmal ☐ Persistent ☐ Longstanding Persistent ☐ Permanent

G. Preoperative Medications

Medication		Timeframe	Administration
ACE or ARB		Within 48 hours	☐ Yes ☐ No ☐ Contraindicated ☐ Unknown
Amiodarone		Prior to surgery	☐ Yes, on home therapy ☐ Yes, therapy started this admission ☐ No ☐ Unknown
Antianginal	Beta Blocker	Within 24 hours	☐ Yes ☐ No ☐ Contraindicated
	Beta Blocker	On therapy for ≥ 2 weeks prior to surgery	☐ Yes ☐ No ☐ Contraindicated ☐ Unknown
	Calcium Channel Blocker	On therapy for ≥ 2 weeks prior to surgery	☐ Yes ☐ No ☐ Contraindicated ☐ Unknown
	Long-acting Nitrate	On therapy for ≥ 2 weeks prior to surgery	☐ Yes ☐ No ☐ Contraindicated ☐ Unknown
	Nitrates, intravenous	Within 24 hours	☐ Yes ☐ No
	Other Antianginal	On therapy for ≥ 2 weeks prior to surgery	☐ Yes ☐ No ☐ Contraindicated ☐ Unknown
Antiplatelet	ADP Inhibitor (includes P2Y12)	Within 5 days	☐ Yes ☐ No ☐ Contraindicated ☐ Unknown (If Yes→)ADP Inhibitors Discontinuation: _____ (# days prior to surgery)
	Aspirin	Within 5 days	☐ Yes ☐ No ☐ Contraindicated ☐ Unknown (If Yes→) Aspirin Discontinuation: _____ (# days prior to surgery) Aspirin one time dose: ☐ Yes ☐ No
	Glycoprotein IIb/IIIa	Within 24 hours	☐ Yes ☐ No
Anticoagulant	Anticoagulants (Intravenous/ SubQ)	Within 48 hours	☐ Yes ☐ No (If Yes→) Medication: ☐ Heparin (Unfractionated) ☐ Heparin (Low Molecular) ☐ Both ☐ Other
	Warfarin (Coumadin)	Within 5 days	☐ Yes ☐ No ☐ Unknown (If Yes→) Coumadin Discontinuation: _____ (# days prior to surgery)
	Factor Xa inhibitors	Within 5 days	☐ Yes ☐ No ☐ Unknown (If Yes→)Factor Xa Discontinuation: _____ (# days prior to surgery)
	Novel Oral Anticoagulant	Within 5 days	☐ Yes ☐ No ☐ Unknown (If Yes→) NOAC Discontinuation: _____ (# days prior to surgery)
	Thrombin Inhibitors	Within 5 days	☐ Yes ☐ No ☐ Unknown (If Yes→) Thrombin Inhibitor Discontinuation: _____ (# days prior to surgery)
	Thrombolytics	Within 48 hours	☐ Yes ☐ No
Inotropic, intravenous		Within 48 hours	☐ Yes ☐ No
Lipid lowering		Within 24 hours	☐ Yes ☐ No ☐ Contraindicated ☐ Unknown (If Yes→)Medication Type : ☐ Statin ☐ Statin + Other ☐ Non-statin/Other
Steroids		Within 24 hours	☐ Yes ☐ No ☐ Contraindicated ☐ Unknown

H. Hemodynamics/Cath/Echo

Cardiac Catheterization Performed : ☐ Yes ☐ No (If Yes→) Cardiac Catheterization Date: __ __/ __ __/__ __ __ __

Coronary Anatomy/Disease known: ☐ Yes ☐ No (If Yes↓)

Dominance: ☐ Left ☐ Right ☐ Co-dominant ☐ Not Documented

Source(s) used to quantify stenosis : ☐ Angiogram ☐ CT ☐ IVUS ☐ Progress/OP Note ☐ Other ☐ Multiple

Number Diseased Vessels (If one, two or three vessel disease ↓) ☐ None ☐ One ☐ Two ☐ Three

Each Column with a "yes" response below must have documentation on at least one vessel

Coronary	**Native Artery** % Stenosis Known: ☐ Yes ☐ No (If yes↓)	**Graft(s)** Graft(s) Present: ☐ Yes ☐ No (If yes↓)	**Stent(s)** Stent(s) Present: ☐ Yes ☐ No (If yes↓)	**Fractional Flow Reserve (FFR)** performed: ☐Yes ☐No (If yes↓)	**Instantaneous wave-free ratio (iFR)** performed: ☐Yes ☐No(If yes↓)
Left Main	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Proximal LAD	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Mid LAD	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Distal LAD	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Diagonal 1	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Diagonal 2	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Diagonal 3	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Circumflex	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Obtuse Marginal 1	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Obtuse Marginal 2	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Obtuse Marginal 3	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Ramus	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
RCA	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Acute Marginal (AM)	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____

Posterior Descending (PDA)	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____
Posterolateral (PLB)	_____%	☐ Patent ☐ Stenosis >=50% ☐ 100% occlusion ☐ Not Documented	☐ Patent ☐ Stenosis >=50% ☐ Not Documented	_____	_____

Syntax Score Known: ☐ Yes ☐ No (If Yes→) Syntax Score: _____

Stress Test: ☐ Yes ☐ No (If Yes →) Result: ☐ Negative (Normal) ☐ Positive (Abnormal) ☐ Not Documented

Ejection Fraction Done: ☐ Yes ☐ No (If Yes→) Ejection Fraction: _____ (%)

Dimensions Available: ☐ Yes ☐ No (If Yes→) | LV End-Systolic Dimension: _____ (mm) | LV End-Diastolic Dimension: _____ (mm)

PA Systolic Pressure Measured: ☐ Yes ☐ No (If Yes→) | PA Systolic Pressure: _____ mmHg

Aortic Valve

Aortic Insufficiency: ☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented(If not "None" ↓)

Eccentric Jet: ☐ Yes ☐ No ☐ Not Documented

Aortic Valve Disease: ☐ Yes ☐ No

(If Yes ↓→) Aortic Stenosis: ☐ Yes ☐ No (If Yes→) Hemodynamic/Echo data available: ☐ Yes ☐ No (If Yes ↓)

Smallest Aortic Valve Area: _____ cm^2

Highest Mean Gradient: _____ mmHg Maximum Aortic jet velocity (V_{max}): _____m/s

AV Disease Etiology Choose PRIMARY Etiology (one):

☐	Bicuspid valve disease	☐	Primary Aortic Disease, Hypertensive Aneurysm
☐	Congenital (other than bicuspid)	☐	Primary Aortic Disease, Idiopathic Root Dilatation
☐	Degenerative- Calcified	☐	Primary Aortic Disease, Inflammatory
☐	Degenerative- Leaflet prolapse with or without annular dilation	☐	Primary Aortic Disease, Loeys-Dietz Syndrome
☐	Degenerative- Pure annular dilatation without leaflet prolapse	☐	Primary Aortic Disease, Marfan Syndrome
☐	Degenerative- Commissural rupture	☐	Primary Aortic Disease, Other Connective tissue disorder
☐	Degenerative- Extensive fenestration	☐	Reoperation-Failure of previous AV repair or replacement
☐	Degenerative- Leaflet perforation/hole	☐	Rheumatic
☐	Endocarditis with root abscess	☐	Supravalvular Aortic Stenosis
☐	Endocarditis without root abscess	☐	Trauma
☐	LV Outflow Tract Pathology, HOCM	☐	Tumor, Carcinoid
☐	LV Outflow Tract Pathology, Sub-aortic membrane	☐	Tumor, Myxoma
☐	LV Outflow Tract Pathology, Sub-aortic Tunnel	☐	Tumor, Papillary Fibroelastoma
☐	LV Outflow Tract Pathology, Other	☐	Tumor, Other
☐	Primary Aortic Disease, Aortic Dissection	☐	Mixed Etiology
☐	Primary Aortic Disease, Atherosclerotic Aneurysm	☐	Not Documented
☐	Primary Aortic Disease, Ehler-Danlos Syndrome		

(If Bicuspid valve disease→) Sievers Class: ☐ 0 No raphe ☐ 1 one raphe ☐ 2 two raphe ☐ Not Documented

Mitral Valve

Mitral Insufficiency: ☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented

(If not "None" ↓)

Eccentric Jet: ☐ Yes ☐ No ☐ Not Documented

Mitral Valve Disease: ☐ Yes ☐ No

(If Yes ↓→) Mitral Stenosis: ☐ Yes ☐ No (If Yes→) Hemodynamic/ Echo data available: ☐ Yes ☐ No (If Yes ↓)

Smallest Valve Area: _____ cm^2Highest Mean Gradient: _____mmHg

MV Disease Etiology Choose PRIMARY Etiology (one):

☐	Myxomatous degeneration/prolapse	☐	Tumor, Papillary fibroelastoma
☐	Rheumatic	☐	Tumor, Other
☐	Ischemic- acute, post infarction (MI ≤ 21 days)	☐	Carcinoid
☐	Ischemic- chronic (MI > 21 days)	☐	Trauma
☐	Non-ischemic Cardiomyopathy	☐	Congenital
☐	Endocarditis	☐	Pure annular dilatation
☐	Hypertrophic Obstructive Cardiomyopathy (HOCM)	☐	Reoperation-Failure of previous MV repair or replacement
☐	Tumor, Carcinoid	☐	Mixed Etiology
☐	Tumor, Myxoma	☐	Not Documented

MV Lesion Choose PRIMARY Lesion (one):

☐	Leaflet prolapse, posterior	☐	Papillary muscle elongation
☐	Leaflet prolapse, bileaflet	☐	Papillary muscle rupture
☐	Leaflet prolapse, anterior	☐	Leaflet thickening
☐	Leaflet prolapse, unspecified	☐	Leaflet retraction
☐	Elongated/ruptured chord(s)/Flail	☐	Chordal tethering
☐	Annular dilatation	☐	Chordal thickening/retraction/fusion

☐	Leaflet calcification	☐	Commissural fusion
☐	Leaflet perforation/hole	☐	Mixed lesion
☐	Mitral annular calcification	☐	Not Documented

Tricuspid Valve

Tricuspid Insufficiency: ☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented

Tricuspid Annular Echo Measurement Available: ☐ Yes ☐ No (If Yes→) Tricuspid Diameter: _____ cm

Tricuspid Valve Disease: ☐ Yes ☐ No (If Yes→) Tricuspid Stenosis: ☐ Yes ☐ No

(If Tricuspid Disease Yes →) TV Etiology: Choose PRIMARY Etiology (one):

☐	Functional/ secondary	☐	Rheumatic
☐	Endocarditis	☐	Tumor
☐	Carcinoid	☐	Trauma
☐	Congenital	☐	Reoperation-Failure of previous TV repair or replacement
☐	Degenerative	☐	Mixed etiology
☐	Pacing wire/catheter induced dysfunction	☐	Not Documented

Pulmonic Valve

Pulmonic Insufficiency: ☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented

Pulmonic Valve Disease: ☐ Yes ☐ No

(If Yes →) RVEDD Known: ☐ Yes ☐ No (If Yes →) RVEDD Indexed to BSA:_____ cm^2

(If Yes →) Pulmonic Stenosis: ☐ Yes ☐ No (If Yes→) Hemodynamic /Echo data available: ☐ Yes ☐ No (If Yes ↓)

Highest Mean Gradient : _____mmHg

(If Yes→) Etiology: (choose one)

☐	Acquired	☐	Reoperation-Failure of previous PV repair or replacement
☐	Congenital, s/p Tetralogy of Fallot (TOF) repair	☐	Mixed etiology
☐	Congenital, no prior Tetralogy of Fallot (TOF) repair	☐	Not Documented

I. Operative

Surgeon: _____ Surgeon NPI: _____

Taxpayer Identification Number: _____

Indicate whether the STS Risk Calculator score was discussed with the patient/family prior to surgery.

☐ Yes, STS risk calculator score was calculated and discussed with the patient/family prior to surgery as documented in the medical record

☐ No, STS risk calculator score was available for scheduled procedure but not discussed with the patient/family prior to surgery or the discussion was not documented

☐ NA, Not applicable (emergent or salvage case, or no risk model available for this procedure)

Incidence:

☐ First cardiovascular surgery	☐ Third re-op cardiovascular surgery
☐ First re-op cardiovascular surgery	☐ Fourth or more re-op cardiovascular surgery
☐ Second re-op cardiovascular surgery	☐ NA- not a cardiovascular surgery

Status: ☐ Elective ☐ Urgent ☐ Emergent ☐ Emergent Salvage

(If Urgent or Emergent choose the most pressing reason↓)

Urgent / Emergent reason:

☐	AMI	☐	PCI Incomplete without clinical deterioration
☐	Anatomy	☐	PCI or attempted PCI with Clinical Deterioration
☐	Aortic Aneurysm	☐	Pulmonary Edema
☐	Aortic Dissection	☐	Pulmonary Embolus
☐	CHF	☐	Rest Angina
☐	Device Failure	☐	Shock, Circulatory Support
☐	Diagnostic/Interventional Procedure Complication	☐	Shock, No Circulatory Support
☐	Endocarditis	☐	Syncope
☐	Failed Transcatheter Valve Therapy , acute annular disruption	☐	Transplant
☐	Failed Transcatheter Valve Therapy , acute device malposition	☐	Trauma
☐	Failed Transcatheter Valve Therapy , subacute device dysfunction	☐	USA
☐	IABP	☐	Valve Dysfunction
☐	Infected Device	☐	Worsening CP
☐	Intracardiac mass or thrombus	☐	Other
☐	Ongoing Ischemia		

Was case previously attempted during this admission, but canceled: ☐ Yes ☐ No

(If Yes→) Date of previous case: __ __/__ __/__ __ __ __ (mm/dd/yyyy)

Timing of previous case: ☐ Prior to induction of anesthesia ☐ After induction, prior to incision ☐ After incision made

Reason previous case was canceled: ☐ Anesthesiology event ☐ Cardiac arrest ☐ Equipment/supply issue ☐ Access Issue ☐ Unanticipated tumor ☐ Donor Organ Unacceptable ☐ Abnormal Labs ☐ Other

Planned previous procedure:

CABG	☐ Yes ☐ No	Valve, Surgical	☐ Yes ☐ No
Mechanical Assist Device	☐ Yes ☐ No	Valve, Transcatheter	☐ Yes ☐ No

Other Non-cardiac ☐ Yes ☐ No Other Cardiac ☐ Yes ☐ No

Was the current procedure canceled: ☐ Yes ☐ No

(If Yes→) Canceled Timing: ☐ Prior to induction of anesthesia ☐ After induction, prior to incision ☐ After incision made

Canceled Reason: ☐ Anesthesiology event ☐ Cardiac arrest ☐ Equipment/supply issue ☐ Access Issue
☐ Unanticipated tumor ☐ Donor Organ Unacceptable ☐ Abnormal Labs ☐ Other

Planned procedure:

CABG	☐ Yes ☐ No	Valve, Surgical	☐ Yes ☐ No
Mechanical Assist Device	☐ Yes ☐ No	Valve, Transcatheter	☐ Yes ☐ No
Other Non-cardiac	☐ Yes ☐ No	Other Cardiac	☐ Yes ☐ No

Initial Operative Approach:

☐ Full conventional sternotomy	☐ Left Thoracotomy	☐ Thoracoabdominal Incision
☐ Partial sternotomy	☐ Right Thoracotomy	☐ Percutaneous
☐ Transverse sternotomy	☐ Bilateral Thoracotomy	☐ Port Access
☐ Right or left parasternal incision	☐ Limited (mini) Thoracotomy , right	☐ Other
☐ Sub-xiphoid	☐ Limited (mini) Thoracotomy , left	☐ None (canceled case)
☐ Sub-Costal	☐ Limited (mini) Thoracotomy , bilateral	

Approach converted during procedure: ☐ Yes, planned ☐ Yes, unplanned ☐ No

Robot Used: ☐ Yes ☐ No (If Yes →) ☐ Used for entire operation ☐ Used for part of the operation

Coronary Artery Bypass: ☐ Yes, planned ☐ Yes, unplanned due to surgical complication ☐ Yes, unplanned due to unsuspected disease or anatomy ☐ No (If "Yes" complete Section J)

Valve Surgery: ☐ Yes ☐ No (If "Yes" complete Section K) (If Yes →) Did the surgeon provide input for valve surgery data abstraction? ☐ Yes ☐ No

Aorta procedure Performed: ☐ Yes, planned ☐ Yes, unplanned due to surgical complication
☐ Yes, unplanned due to unsuspected disease or anatomy ☐ No(If "Yes" complete Section M 2)
(If Yes →) Did the surgeon provide input for aortic surgery data abstraction? ☐ Yes ☐ No

Other Cardiac Procedure: ☐ Yes, planned ☐ Yes, unplanned due to surgical complication
☐ Yes, unplanned due to unsuspected disease or anatomy ☐ No (If "Yes" complete Section M)

Other Cardiac Procedure, AFib:☐ Yes ☐ No (If Yes →) (Complete Section M 1) (If Yes →) Did the surgeon provide input for AFib data abstraction? ☐ Yes ☐ No

Other Non-Cardiac Procedure: ☐ Yes ☐ No (If "Yes" complete Section N)

Enter up to 10 CPT-1 Codes pertaining to the surgery for which the data collection form was initiated:

1. _____	2. _____	3. _____	4. _____	5. _____
6. _____	7. _____	8. _____	9. _____	10. _____

OR Entry Date And Time: __ __/__ __/__ __ __ __ __ __: __ __ mm/dd/yyyy hh:mm - 24 hr clock)

OR Exit Date And Time: __ __/__ __/__ __ __ __ __ __:__ __ (mm/dd/yyyy hh:mm - 24 hr clock)

General Anesthesia: ☐ Yes ☐ No (If General Anesthesia No→) Procedural Sedation : ☐ Yes ☐ No

(If General Anesthesia Yes →) Intubation: ☐ Yes, prior to entering OR for this procedure ☐ Yes, in OR for this procedure ☐ No

(If Intubation Yes →) Intubation Date and Time: __ __/__ __/__ __ __ __ __ __: __ __ (mm/dd/yyyy hh:mm - 24 hr clock)

Initial Extubation Date and Time: __ __/__ __/__ __ __ __ __ __: __ __ (mm/dd/yyyy hh:mm - 24 hr clock)

Skin Incision Start Date and Time: __ __/__ __/__ __ __ __ __ __: __ __ (mm/dd/yyyy hh:mm - 24 hr clock)

Skin Incision Stop Date and Time: __ __/__ __/__ __ __ __ __ __: __ __ (mm/dd/yyyy hh:mm - 24 hr clock)

Anesthesia End Date and Time: __ __/__ __/__ __ __ __ __ __: __ __ (mm/dd/yyyy hh:mm - 24 hr clock)

Appropriate Antibiotic Selection: ☐ Yes ☐ No ☐ Exclusion | Appropriate Antibiotic Administration Timing: ☐ Yes ☐ No ☐ Exclusion | Appropriate Antibiotic Discontinuation: ☐ Yes ☐ No ☐ Exclusion

Additional intraoperative prophylactic antibiotic dose given : ☐ Yes ☐ No

Temperature Measured: ☐ Yes ☐ No

(If Yes→) Lowest Temperature (° C): _____ Temperature Source: ☐ Esophageal ☐ CPB venous return ☐ Bladder ☐ Nasopharyngeal ☐ Tympanic ☐ Rectal ☐ Other ☐ Unknown

Lowest Intra-op Hemoglobin : _____ | Lowest Intra-op Hematocrit : _____ | Highest Intra-op Glucose: _____

CPB Utilization: ☐ None
☐ Combination (If Combination→) Combination Plan: ☐ Planned ☐ Unplanned (If Unplanned↓)

Unplanned Reason: ☐ Exposure/visualization ☐ Bleeding
☐ Inadequate size/ diffuse disease of distal vessel
☐ Hemodynamic instability(hypotension/arrhythmias)
☐ Conduit quality and/or trauma ☐ Other

☐ Full (If "Combination" or "Full"↓)

Arterial Cannulation Insertion Site: (Select all that apply↓)

Aortic	☐ Yes ☐ No	Axillary	☐ Yes ☐ No	Other	☐ Yes ☐ No
Femoral	☐ Yes ☐ No	Innominate	☐ Yes ☐ No		

Venous Cannulation Insertion Site: (Select all that apply↓)

Femoral	☐ Yes ☐ No	Pulmonary Vein	☐ Yes ☐ No
Jugular	☐ Yes ☐ No	Caval/Bicaval	☐ Yes ☐ No
Rt. Atrial	☐ Yes ☐ No	Other	☐ Yes ☐ No
Lt. Atrial	☐ Yes ☐ No		

Cardiopulmonary Bypass Time (minutes): _____

Circulatory Arrest: ☐ Yes ☐ No (If Yes↓)
Circulatory Arrest Without Cerebral Perfusion Time: _____ (min)
Circulatory Arrest With Cerebral Perfusion: ☐ Yes ☐ No
(If Yes →) Cerebral Perfusion Time: _____ (min)
Cerebral Perfusion Type: ☐ Antegrade ☐ Retrograde ☐ Both antegrade and retrograde
Total Circulatory Arrest Time: _____(System Calculation)

Aortic Occlusion: ☐ None – beating heart ☐ Aortic Cross clamp
☐ None – fibrillating heart ☐ Balloon Occlusion
(If "Aortic cross clamp" or "Balloon occlusion" →): Cross Clamp Time: _____ (min)

Cardioplegia Delivery: ☐ None ☐ Antegrade ☐ Retrograde ☐ Both
(If "Antegrade", "Retrograde" or "Both"→) Type of cardioplegia used: ☐ Blood ☐ Crystalloid ☐ Both ☐ Other

Cerebral Oximetry Used: ☐ Yes ☐ No

Diffuse Aortic Calcification (Porcelain Aorta) : ☐ Yes ☐ No

Assessment of Ascending Aorta/Arch for atheroma/plaque: ☐ Yes ☐ No ☐ Not Reported (If Yes ↓)
Assessment method: ☐ TEE ☐ Epiaortic ultrasound ☐ CT scan ☐ Other diagnostic modality

Assessment of Aorta Plaque: ☐ Normal Aorta/No or minimal plaque ☐ Extensive intimal thickening
☐ Protruding Atheroma < 5 mm ☐ Protruding Atheroma >= 5 mm
☐ Mobile plaques ☐ Not documented

Aortic Condition Altered Plan: ☐ Yes ☐ No

Intraop Blood Products Refused: ☐ Yes ☐ No

(If No →) Intraop Blood Products: ☐ Yes ☐ No

(If Yes →) Red Blood Cell Units: _____ Platelet Units: _____
Fresh Frozen Plasma Units: _____ Cryoprecipitate Units: _____

Intraop Clotting Factors : ☐ Yes, Factor VIIa ☐ Yes, FEIBA ☐ Yes, Composite ☐ No Intraop Prothrombin Complex concentrate: ☐ Yes ☐ No

Intraop Antifibrinolytic Medications: Epsilon Amino-Caproic Acid: ☐ Yes ☐ No Tranexamic Acid: ☐ Yes ☐ No

Intraoperative TEE Performed post procedure: ☐ Yes ☐ No (If Yes ↓)
Highest level aortic insufficiency found:
☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented
Mean Aortic Gradient:_____
Aortic Paravalvular leak:
☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented
Highest level Mitral insufficiency found:
☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented
Mean Mitral Gradient:_____
Mitral Paravalvular leak:
☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented
Highest level Tricuspid insufficiency found:
☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented
Mean Tricuspid Gradient:_____
Tricuspid Paravalvular leak:
☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented

Ejection Fraction Measured post procedure: ☐ Yes ☐ No (If Yes →) Ejection Fraction:_____

Surgery followed by a planned PCI: ☐ Yes ☐ No

J. Coronary Bypass

(If Coronary Artery Bypass = Yes ↓)

Internal Mammary Artery (arteries) used: ☐ Yes ☐ No (If yes→) Total Number of Distal Anastomoses with IMA conduits: _____
(If no→) Reason for no IMA ☐ Subclavian stenosis ☐ Previous mediastinal radiation ☐ No (bypassable) LAD disease
☐ Previous cardiac or thoracic surgery ☐ Emergent or salvage procedure ☐ Other
(If yes→) Left IMA: ☐ Yes, pedicle ☐ Yes, skeletonized ☐ No
(If not no→) LIMA Harvest technique: ☐ Direct Vision (open) ☐ Thoracoscopy ☐ Combination ☐ Robotic Assist
Right IMA: ☐ Yes, pedicle ☐ Yes, skeletonized ☐ No
(If not no→) RIMA Harvest technique: ☐ Direct Vision (open) ☐ Thoracoscopy ☐ Combination ☐ Robotic Assist

Radial Artery (arteries) used: ☐ Yes ☐ No (If yes→) Total Number of Distal Anastomoses with radial artery conduits: _____
(If yes→) Radial Artery Harvest Technique: ☐ Endoscopic ☐ Direct Vision (open) ☐ Both
Radial Artery Harvest and Prep Time: _____ (minutes)

Venous Conduit(s) used: ☐ Yes ☐ No (If yes→) Total Number of Distal Anastomoses with venous conduits: _____
(If yes→) Vein Harvest Technique: ☐ Endoscopic ☐ Direct Vision (open) ☐ Both ☐ Cryopreserved
Vein Harvest and Prep Time: _____ (minutes)

Number of Distal Anastomoses : with other arterial conduits: _____ with arterial- venous composite conduits: _____
with venous -arterial composite conduits: _____ with arterial- arterial composite conduits: _____

(Note: the total number of distals above should equal the number of columns in the CABG Grid)

Proximal Technique: ☐ Single Cross Clamp ☐ Partial Occlusion Clamp ☐ Anastomotic Assist Device ☐ None (isolated in situ mammary)

CABG NUMBER (one column per distal insertion)		1	2	3	4	5	6	7	8	9	10
GRAFT	Yes	NA									

	No										
DISTAL INSERTION SITE	Left Main										
	Proximal LAD										
	Mid LAD										
	Distal LAD										
	Diagonal 1										
	Diagonal 2										
	Diagonal 3										
	Circumflex										
	Obtuse Marginal 1										
	Obtuse Marginal 2										
	Obtuse Marginal 3										
	Ramus										
	RCA										
	Acute Marginal (AM)										
	Posterior Descending (PDA)										
	Posterolateral (PLB)										
	Other										
PROXIMAL SITE	In Situ Mammary										
	Ascending aorta										
	Descending aorta										
	Subclavian artery										
	Innominate artery										
	T-graft off SVG										
	T-graft off Radial										
	T-graft off LIMA										
	T-graft off RIMA										
	Natural Y vein graft										
	Other										
CONDUIT	Vein graft										
	In Situ LIMA										
	In Situ RIMA										
	Free IMA										
	Composite artery-vein										
	Radial artery										
	Other arteries, homograft										
	Synthetic graft										
DISTAL POSITION	End to Side										
	Sequential (side to side)										
ENDARTERECTOMY	Yes										
	No										
VEIN PATCH ANGIOPLASTY	Yes										
	No										

K. Valve Surgery (If Valve Surgery=Yes ↓)

Valve Prosthesis Explant: ☐ Yes ☐ No (If Yes ↓)

Explant Position: ☐ Aortic ☐ Mitral ☐ Tricuspid ☐ Pulmonic

Explant Type: ☐ Mechanical Valve ☐ Bioprosthetic Valve ☐ Homograft ☐ Annuloplasty Device ☐ Leaflet Clip ☐ Transcatheter Device ☐ Other ☐ Unknown

Explant Etiology: ☐ Endocarditis ☐ Incompetence ☐ Prosthetic Deterioration ☐ Thrombosis ☐ Failed Repair ☐ Pannus ☐ Sizing/Positioning issue ☐ Other ☐ Hemolysis ☐ Paravalvular leak ☐ Stenosis ☐ Unknown

Explant Device known: ☐ Yes ☐ No (If Yes→) Explant model#:_____ Unique Device Identifier (UDI):_____

Second Valve Prosthesis Explant: ☐ Yes ☐ No (If Yes↓)

Explant Position: ☐ Aortic ☐ Mitral ☐ Tricuspid ☐ Pulmonic

Explant Type: ☐ Mechanical Valve ☐ Bioprosthetic Valve ☐ Homograft ☐ Annuloplasty Device ☐ Leaflet Clip ☐ Transcatheter Device ☐ Other ☐ Unknown

Explant Etiology: ☐ Endocarditis ☐ Incompetence ☐ Prosthetic Deterioration ☐ Thrombosis ☐ Failed Repair ☐ Pannus Formation ☐ Sizing/Positioning issue ☐ Other ☐ Hemolysis ☐ Paravalvular leak ☐ Stenosis ☐ Unknown

Explant Device known: ☐ Yes ☐ No (If Yes→) Explant model#:_____ Unique Device Identifier (UDI):_____

Aortic Valve Procedure Performed: ☐ Yes, planned ☐ Yes, unplanned due to surgical complication ☐ Yes, unplanned due to unsuspected disease or anatomy ☐ No (If Yes ↓)

Procedure Performed:

☐ Replacement (If Replacement↓)

Transcatheter Valve Replacement: ☐ Yes ☐ No (If Yes ↓)

Approach: ☐ Transapical ☐ Transaxillary ☐ Transfemoral ☐ Transaortic ☐ Subclavian ☐ Other

Surgical valve Replacement: ☐ Yes ☐ No

(If Yes →) Device type: ☐ Mechanical ☐ Bioprosthetic ☐ Surgeon fashioned pericardium (Ozaki) ☐ Other

(If Bioprosthetic→) Valve type: ☐ Stented ☐ Stentless subcoronary valve only ☐ Sutureless/rapid deployment

☐ Repair/Reconstruction (If Repair/Reconstruction ↓)

Repair Type (Select all that apply)

Commissural suture annuloplasty	☐ Yes ☐ No	Ring annuloplasty	☐ Yes ☐ No
External Suture Annuloplasty	☐ Yes ☐ No	(If Yes →) Type: ☐ External Ring ☐ Internal Ring	
Leaflet plication	☐ Yes ☐ No	Leaflet resection suture	☐ Yes ☐ No
Nodular Release	☐ Yes ☐ No	Leaflet Shaving	☐ Yes ☐ No
Leaflet free edge reinforcement	☐ Yes ☐ No	Leaflet pericardial patch	☐ Yes ☐ No
Leaflet commissural resuspension suture	☐ Yes ☐ No	Leaflet debridement	☐ Yes ☐ No
Division of fused leaflet raphe	☐ Yes ☐ No	Repair of periprosthetic leak	☐ Yes ☐ No

Aortic annular enlargement with patch ☐ Yes ☐ No (If Yes →) Technique: ☐ Nicks-Nunez ☐ Manougian ☐ Konno ☐ Other ☐ Unknown

Root Procedure ☐ Yes ☐ No (If Yes ↓) (For AV surgery involving the aortic root→ also complete section M-2)

Root Replacement with coronary Ostial Reimplantation (Bentall) ☐ Yes ☐ No

(If Yes →) Type:
☐ Mechanical ☐ Bioprosthetic
☐ Autograft with native pulmonary valve (Ross procedure) ☐ Homograft root replacement

(If Bioprosthetic→) ☐ Stented valve composite graft ☐ Stentless biologic full root

Valve Sparing root operation: ☐ Yes ☐ No (If Yes ↓)

☐ Resuspension AV without replacement of ascending aorta

☐ Resuspension AV with replacement of ascending aorta

☐ Valve sparing root reimplantation (David)

☐ Valve sparing root remodeling (Yacoub)

☐ Valve sparing root reconstruction (Florida Sleeve)

Major root reconstruction/ debridement with or without pericardial patch ☐ Yes ☐ No

Patch used: ☐ Yes ☐ No (If Yes →) Patch type: ☐ Synthetic ☐ Bioprosthetic ☐ Autologous

Aortic Valve Implant: ☐ Yes ☐ No (If Yes ↓)

Implant Model Number: _____ Implant Size: _____

Unique Device identifier (UDI): _____

Mitral Valve Procedure Performed: ☐ Yes, planned ☐ Yes, unplanned due to surgical complication ☐ Yes, unplanned due to unsuspected disease or anatomy ☐ No (If Yes ↓)

Procedure Performed:

☐ Repair (If Repair↓)

Repair Approach: ☐ Transcatheter ☐ Surgical

If Surgical (Select all that apply↓)

Annuloplasty: ☐ Yes ☐ No

Leaflet resection: ☐ Yes ☐ No (If Yes↓)

Resection Type: ☐ Triangular ☐ Quadrangular ☐ Other

Resection Location(s):

Anterior resection: ☐ Yes ☐ No

(If Yes→) Location documented: ☐ Yes ☐ No (If Yes↓)

Anterior leaflet resection location: A1 ☐ Yes ☐ No A2 ☐ Yes ☐ No A3 ☐ Yes ☐ No

Posterior Resection: ☐ Yes ☐ No

(If Yes→) Location documented: ☐ Yes ☐ No (If Yes↓)

Posterior leaflet resection location: P1 ☐ Yes ☐ No P2 ☐ Yes ☐ No P3☐ Yes ☐ No

Commissure Resection: ☐ Yes ☐ No(If Yes↓)

Commissural resection location: ☐ Medial (C2) ☐ Lateral (C1) ☐ Both ☐ Not Documented

Neochords (PTFE): ☐ Yes ☐ No (If Yes↓)

Anterior Neochords: ☐ Yes ☐ No

(If Yes→) Location documented: ☐ Yes ☐ No (If Yes↓)

Anterior neochord location: A1 ☐ Yes ☐ No A2 ☐ Yes ☐ No A3☐ Yes ☐ No

Neochord Location(s):

Posterior Neochords: ☐ Yes ☐ No

(If Yes→) Location documented: ☐ Yes ☐ No (If Yes↓)

Posterior Neochord location: P1 ☐ Yes ☐ No P2 ☐ Yes ☐ No P3☐ Yes ☐ No

☐ Commissure Neochords: ☐ Yes ☐ No(If Yes↓)

Commissure Neochord location: ☐ Medial (C2) ☐ Lateral(C1) ☐ Both ☐ Not Documented

Chordal/ Leaflet transfer: ☐ Yes ☐ No (If Yes↓)

☐ Anterior Chordal/Leaflet transfer: ☐ Yes ☐ No

(If Yes→) Location documented: ☐ Yes ☐ No (If Yes↓)

Anterior chordal/leaflet transfer location: A1 ☐ Yes ☐ No A2 ☐ Yes ☐ No A3☐ Yes ☐ No

Chordal/ Leaflet Transfer Location(s):

☐ Posterior Chordal/Leaflet transfer: ☐ Yes ☐ No

(If Yes→) Location documented: ☐ Yes ☐ No (If Yes↓)

Posterior chordal/leaflet transfer location: P1 ☐ Yes ☐ No P2 ☐ Yes ☐ No P3☐ Yes ☐ No

☐ Commissure Chordal/Leaflet transfer: ☐ Yes ☐ No(If Yes↓)

Commissural chordal/leaflet transfer location: ☐ Medial (C2) ☐ Lateral(C1) ☐ Both ☐ Not Documented

Folding Plasty: ☐ Yes ☐ No

Sliding Plasty: ☐ Yes ☐ No

Annular decalcification/ debridement: ☐ Yes ☐ No

Leaflet extension/replacement patch: ☐ Yes ☐ No

(If Yes→) Patch Location: ☐ Anterior ☐ Posterior ☐ Both ☐ Not Documented

Edge to edge repair: ☐ Yes ☐ No

Mitral commissurotomy: ☐ Yes ☐ No

Mitral commissuroplasty: ☐ Yes ☐ No

Mitral cleft repair: (scallop closure): ☐ Yes ☐ No

Mitral paraprosthetic leak repair: ☐ Yes ☐ No

☐ Replacement (If Replacement ↓)

Mitral repair attempted prior to replacement: ☐ Yes ☐ No

Mitral chords preserved: ☐ Anterior ☐ Posterior ☐ Both ☐ None

Transcatheter replacement: ☐ Yes ☐ No

Implant: ☐ Yes ☐ No (If Yes

Implant type: ☐ Mechanical valve ☐ Bioprosthetic valve ☐ Annuloplasty device ☐ Mitral Leaflet clip ☐ Transcatheter device ☐ Surgically implanted transcatheter device ☐ Other

Implant Model Number: _____ Implant Size: _____

Unique Device identifier (UDI): _____

Tricuspid Valve Procedure Performed: ☐ Yes, planned ☐ Yes, unplanned due to surgical complication ☐ Yes, unplanned due to unsuspected disease or anatomy ☐ No (If Yes ↓)

Repair : ☐ Yes ☐ No (If Yes↓)

Annuloplasty ☐ Yes ☐ No (If Yes↓)

Type of Annuloplasty: ☐ Pericardium ☐Suture ☐ Prosthetic Ring ☐ Prosthetic Band ☐ Other

Leaflet Resection: ☐ Yes ☐ No

Replacement: ☐ Yes ☐ No (If Yes→) Transcatheter Replacement: ☐ Yes ☐ No

Valvectomy: ☐ Yes ☐ No

Implant: ☐ Yes ☐ No (If Yes ↓)

Implant Type: ☐ Mechanical Valve ☐ Bioprosthetic Valve ☐ Homograft ☐ Annuloplasty Device ☐ Transcatheter Device ☐ Other

Implant Model Number:_____ Size: _____

Unique Device Identifier (UDI): _____

Pulmonic Valve Procedure Performed: ☐ Yes, planned ☐ Yes, unplanned due to surgical complication ☐ Yes, unplanned due to unsuspected disease or anatomy ☐ No (If Yes ↓)

Procedure Performed:

☐ Repair/Leaflet Reconstruction

☐ Replacement (If Replacement→) Transcatheter Replacement: ☐ Yes ☐ No

☐ Valvectomy

Implant: ☐ Yes ☐ No (If Yes ↓)

Implant Type: ☐Surgeon Fashioned ☐Commercially Supplied

(If Surgeon Fashioned →) Material: ☐ PTFE (Gore-Tex) ☐ Pericardium ☐ Other

(If Commercially Supplied →) Device Type: ☐ Mechanical Valve ☐ Annuloplasty Device ☐ Bioprosthetic Valve ☐ Homograft ☐ Transcatheter Device ☐ Other

Implant Model Number:_____ Size: _____

Unique Device Identifier (UDI):_____

L. Mechanical Cardiac Assist Devices

Intra-Aortic Balloon Pump (IABP): ☐ Yes ☐ No (If Yes ↓)

IABP Insertion: ☐ Preop ☐ Intraop ☐ Postop

Primary Reason for Insertion: ☐ Hemodynamic Instability ☐ Procedural Support ☐ Unstable Angina ☐ CPB Weaning Failure ☐ Prophylactic ☐ Other

Catheter Based Assist Device Used: ☐ Yes ☐ No (If Yes ↓)

Type: ☐ RV ☐ LV ☐ BiV

When Inserted: ☐ Preop ☐ Intraop ☐ Postop

Primary Reason for Insertion: ☐ Hemodynamic instability ☐ CPB weaning failure ☐ PCI failure ☐ Procedural support ☐Other

ECMO: ☐ Veno-venous ☐ Veno-arterial ☐ Veno-venous converted to Veno-arterial ☐ No (If Yes ↓)

ECMO Initiated: ☐ Preop ☐ Intraop ☐ Postop ☐ Non-operative

Clinical Indication for ECMO: ☐ Cardiac Failure ☐ Respiratory Failure ☐ Hypothermia ☐ Rescue/salvage ☐ Other

L.2 Ventricular Assist Devices

(Use Key to complete table below -will be dropdown lists in software)

Timing:
1. Pre-Operative (during same hospitalization but not same OR trip as CV surgical procedure)
2. Stand-alone VAD procedure
3. In conjunction with CV surgical procedure (same trip to the OR)- planned
4. In conjunction with CV surgical procedure (same trip to the OR)- unplanned
5. Post-Operative (after surgical procedure during reoperation)

Indication:
1. Bridge to Transplantation
2. Bridge to Recovery
3. Destination
4. Post cardiotomy Ventricular Failure
5. Device Malfunction
6. End of (device) Life
7. Salvage

Type:
1. Right VAD (RVAD)
2. Left VAD (LVAD)
3. Biventricular VAD (BiVAD)
4. Total Artificial Heart (TAH)

Reason:
1. Cardiac Transplant
2. Recovery
3. Device Transfer
4. Device-Related Infection
5. Device Malfunction
6. End of (device) Life

Device: See VAD list

Was patient admitted with VAD ☐ Yes ☐ No

(If Yes →)

Previous VAD implanted at another facility ☐ Yes ☐ No

Insertion date: __/__/____

Indication:

Type:

Device Model Number: _____ UDI: _____

Previous VAD Explanted During This Admission: ☐ Yes, not during this procedure ☐ Yes, during this procedure ☐ No

(If "Yes, not during this procedure" or "Yes, during this procedure" →) Reason:

(If "Yes, not during this procedure" →) Date: __/__/____

Ventricular Assist Device Implanted during this hospitalization ☐ Yes ☐ No

(If Yes, provide data on up to 3 separate devices implanted ↓)

VAD IMPLANT(s)	**Initial implant**	**2nd device implanted?** ☐ Yes ☐ No (If Yes ↓)	**3rd Device implanted?** ☐ Yes ☐ No (If Yes ↓)
Timing			
Indication			
Type			
Device			
Implant Date	__/__/____	__/__/____	__/__/____
UDI	_____	_____	_____
VAD was explanted	☐ Yes, not during this procedure ☐ Yes, during this procedure ☐ No	☐ Yes, not during this procedure ☐ Yes, during this procedure ☐ No	☐ Yes, not during this procedure ☐ Yes, during this procedure ☐ No
Reason (If "Yes, not during this procedure" or "Yes, during this procedure" →)			
Date (If "Yes, not during this procedure" →)	__/__/____	__/__/____	__/__/____

M. Other Cardiac Procedures

(If Other Cardiac Procedure = Yes ↓) See Proc ID Table to determine whether these procedures impact isolate procedure categories

ASD repair- PFO type ☐ Yes ☐ No	Myocardial Stem Cell Therapy: ☐ Yes ☐ No
ASD Repair- secundum or sinus venosus ☐ Yes ☐ No	Pulmonary Thromboembolectomy: ☐ Yes, Acute ☐ Yes, Chronic ☐ No
AFib Intracardiac lesions (If yes, complete M-1) ☐ Yes ☐ No	Subaortic Stenosis Resection: ☐ Yes ☐ No (If Yes ↓)
AFib Epicardial lesions (If yes, complete M-1) ☐ Yes ☐ No	Type : ☐ Muscle ☐ Ring ☐ Membrane ☐ Web ☐ Not Reported
Atrial Appendage procedure: ☐ RAA ☐ LAA ☐ Both ☐ No (If not No ↓)	Surgical Ventricular Restoration: ☐ Yes ☐ No
Indicate method for atrial appendage ligation/exclusion: ☐ Intra-atrial oversewing ☐ Epicardial Suture Ligation ☐ Amputation with oversewing ☐ Stapler (cutting) ☐ Stapler (noncutting) ☐ Epicardially applied occlusion device If epicardial applied occlusion device → Model: ☐ AtriClip ☐ Lariat ☐ Other UDI: _____	
Arrhythmia Device: ☐ Pacemaker ☐ Pacemaker with CRT ☐ ICD ☐ ICD with CRT ☐ Implantable Recorder ☐ None	Transmyocardial revascularization (TMR): ☐ Yes ☐ No Tumor: ☐ Myxoma ☐ Fibroelastoma ☐ Hypernephroma ☐ Sarcoma ☐ Other ☐ No
Lead Insertion: ☐ Yes ☐ No	Transplant, Cardiac : ☐ Yes ☐ No
Lead Extraction : ☐ Yes, planned ☐ Yes, unplanned due to surgical complication ☐ Yes, unplanned due to unsuspected disease or anatomy ☐ No	Trauma, Cardiac : ☐ Yes ☐ No
Congenital Defect Repair: (If yes, complete M-3) ☐ Yes ☐ No	VSD Repair: ☐ Yes-congenital ☐ Yes-acquired ☐ No
LV Aneurysm Repair: ☐ Yes ☐ No	Other Cardiac Procedure ☐ Yes ☐ No

M.1. Atrial Fibrillation Procedures

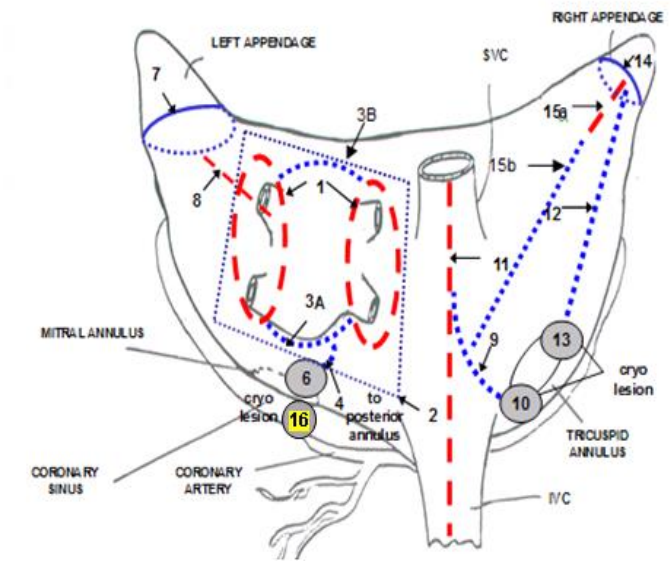
(If Other Cardiac Procedure, AFib = Yes ↓)

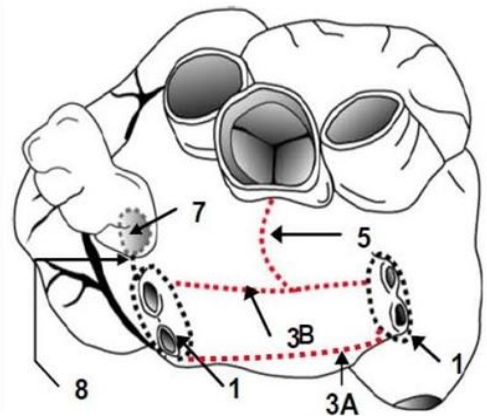
Lesion location: ☐ Primarily epicardial ☐ Primarily Intracardiac

Method of Lesion Creation: (Select all that apply↓)

Radiofrequency	☐ Yes ☐ No (If Yes →)	Bipolar ☐ Yes ☐ No
Cut-and-sew	☐ Yes ☐ No	
Cryo	☐ Yes ☐ No	

Lesions Documented: ☐ Yes ☐ No (If Yes ↓)





Epicardial Left Sided Lesions

Lesions: (check all that apply ↓)

☐	1	Bilateral Pulmonary Vein Isolation	☐	9	Intercaval Line to Tricuspid Annulus (“T” lesion)
☐	2	Box Lesion Only	☐	10	Tricuspid Cryo Lesion, Medial
☐	3a	Inferior Pulmonary Vein Connecting Lesion	☐	11	Intercaval Line (SVC and IVC)
☐	3b	Superior Pulmonary Vein Connecting Lesion	☐	12	Tricuspid Annular Line to RAA
☐	4	Posterior Mitral Annular Line Lesion	☐	13	Tricuspid Cryo Lesion
☐	5	Pulmonary Vein Connecting Lesion to Anterior Mitral Annulus	☐	14	RAA Ligation/Removal/Obliteration
☐	6	Mitral Valve Annular Lesion	☐	15a	RAA Lateral Wall (Short)
☐	7	LAA /Removal/Obliteration	☐	15b	RAA Lateral Wall to “T” Lesion
☐	8	Pulmonary Vein to LAA Lesion	☐	16	Coronary Sinus Lesion

M.2. Aorta And Aortic Root Procedures

Family history of disease of aorta: ☐ Aneurysm ☐ Dissection ☐ Both Aneurysm and Dissection ☐ Sudden Death ☐ None ☐ Unknown

Patient's genetic history: ☐ Marfan ☐ Ehlers-Danlos ☐ Loeys-Dietz ☐ Non-Specific familial thoracic aortic syndrome ☐ Bicuspid AV ☐ Turner syndrome ☐ Other ☐ None ☐ Unknown

Prior aortic intervention: ☐ Yes ☐ No ☐ Unknown (If Yes ↓)

Location	Previous repair location(s)	Repair Type	Repair failure (If Yes ↓)	Disease progression (If Yes ↓)
	Select all that apply	Select all that apply	Select all that apply	Select all that apply
Root	☐ Yes ☐ No	☐ Open ☐ Endovascular ☐ Hybrid	☐ Yes ☐ No	☐ Yes ☐ No
Ascending	☐ Yes ☐ No	☐ Open ☐ Endovascular ☐ Hybrid	☐ Yes ☐ No	☐ Yes ☐ No
Arch	☐ Yes ☐ No	☐ Open ☐ Endovascular ☐ Hybrid	☐ Yes ☐ No	☐ Yes ☐ No
Descending	☐ Yes ☐ No	☐ Open ☐ Endovascular ☐ Hybrid	☐ Yes ☐ No	☐ Yes ☐ No
Suprarenal abdominal	☐ Yes ☐ No	☐ Open ☐ Endovascular ☐ Hybrid	☐ Yes ☐ No	☐ Yes ☐ No
Infrarenal abdominal	☐ Yes ☐ No	☐ Open ☐ Endovascular ☐ Hybrid	☐ Yes ☐ No	☐ Yes ☐ No

Endoleak: ☐ Yes ☐ No ☐ Unknown (If Yes, select all ↓)

☐ Type I: leak at graft attachment site: ☐ Yes ☐ No

(If Yes →) Type I location: ☐ Ia-proximal ☐ Ib -distal ☐ Ic- iliac occluder

☐ Type II: aneurysm sac filling via branch vessel: ☐ Yes ☐ No

(If Yes →) Number of vessels: ☐ IIa: single vessel ☐ IIb: two vessels or more

☐ Type III: leak through defect in graft: ☐ Yes ☐ No

(If Yes →) Graft defect type: ☐ IIIa: junctional separation of modular components ☐ IIIb: endograft fractures or holes

☐ Type IV: leak through graft fabric – porosity: ☐ Yes ☐ No

☐ Type V: endotension - expansion aneurysm sac without leak: ☐ Yes ☐ No

Infection: ☐ Yes ☐ No ☐ Unknown (If Yes →) Aorta Infection Type: ☐ Graft infection ☐ Valvular endocarditis ☐ Nonvalvular endocarditis ☐ Native aorta ☐Multiple infection types

Trauma: ☐ Yes ☐ No ☐ Unknown (If Yes →) Location: Select all that apply

Root	☐ Yes ☐ No	Descending Thoracoabdominal	☐ Yes ☐ No
Ascending	☐ Yes ☐ No	Abdominal	☐ Yes ☐ No
Arch	☐ Yes ☐ No		☐ Yes ☐ No

Presentation: ☐ Pain ☐ CHF ☐ Cardiac Arrest ☐ Syncope ☐ Stroke ☐ Limb numbness ☐ Paralysis ☐ Fatigue ☐ Infection ☐ Weakness ☐ Hoarseness (vocal cord dysfunction) ☐ Asymptomatic

Primary Indication: ☐ Aneurysm ☐ Dissection ☐ Valvular Dysfunction ☐ Obstruction ☐ Intramural Hematoma ☐ Infection ☐ Stenosis ☐Coarctation

(if Aneurysm→)

Etiology: ☐ Atherosclerosis ☐ Infection ☐ Inflammatory ☐ Connective Tissue Disorder ☐ Penetrating Ulcer ☐ Pseudoaneurysm ☐ Mycotic ☐ Traumatic transection ☐ Intercostal visceral patch ☐ Anastomotic site ☐ Unknown

Type: ☐ Fusiform ☐ Saccular ☐ Unknown

Rupture: ☐ Yes ☐ No (If Yes →) Contained rupture: ☐ Yes ☐ No

Location: ☐ Below STJ ☐ STJ-midascending ☐ Midascending to distal ascending ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11

(if Dissection→)

Timing: ☐ Hyperacute (<48 hrs) ☐ Acute (48hrs-2weeks) ☐ Subacute (>2weeks -90 days) ☐ Chronic (>90 days) ☐ Acute on Chronic ☐ Unknown

Disection onset date known ☐ Yes ☐ No (If Yes →) Date of onset:_ _/_ _/_ _ _ _

Primary tear location: ☐ Below STJ ☐ STJ-midascending ☐ Midascending to distal ascending ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11

Secondary tear location: ☐ Below STJ ☐ STJ-midascending ☐ Midascending to distal ascending ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11

Retrograde extension: ☐ Yes ☐ No ☐ Unknown (If Yes ↓)

Retrograde Location: ☐ Below STJ ☐ STJ-midascending ☐ Midascending to distal ascending ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4

Post TEVAR: ☐ Yes ☐ No

Distal extension: ☐ Yes ☐ No ☐ Unknown (If Yes ↓)

Distal Extension Location: ☐ Below STJ ☐ STJ-midascending ☐ Midascending to distal ascending ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11

Malperfusion: ☐ Yes ☐ No ☐ Unknown (If Yes ↓ select all that apply)

Coronary	☐ Yes ☐ No	Superior Mesenteric	☐ Yes ☐ No
Right Subclavian	☐ Yes ☐ No	Renal, left	☐ Yes ☐ No
Right Common Carotid	☐ Yes ☐ No	Renal. right	☐ Yes ☐ No
Left Common Carotid	☐ Yes ☐ No	Iliofemoral	☐ Yes ☐ No
Left Subclavian	☐ Yes ☐ No	Spinal	☐ Yes ☐ No

Celiac ☐ Yes ☐ No

Lower Extremity Motor Function: ☐ No deficit ☐ Weakness ☐ Paralysis ☐ Unknown

Lower Extremity Sensory Deficit: ☐ Yes ☐ No ☐ Unknown

Rupture: ☐ Yes ☐ No (If Yes ↓)

Contained rupture: ☐ Yes ☐ No

Rupture Location: ☐ Below STJ ☐ STJ-midascending ☐ Midascending to distal ascending
☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7
☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11

Root

Aorto-annular ectasia: ☐ Yes ☐ No ☐ Unknown

Asymmetric Root Dilation: ☐ Yes ☐ No ☐ Unknown (If Yes →) Dilation Location ☐ Right ☐ Left ☐ Non-coronary

Sinus of Valsalva aneurysm: ☐ Yes ☐ No ☐ Unknown (If Yes →) SV Aneurysm Location: ☐ Right ☐ Left ☐ Non-coronary

Arch

Arch Type : ☐ Left ☐ Right

Aberrant Left Subclavian: ☐ Yes ☐ No

Aberrant Right Subclavian : ☐ Yes ☐ No

Bovine: ☐ Yes ☐ No

Kommerell : ☐ Yes ☐ No

Patent internal mammary artery bypass graft: ☐ Yes ☐ No

Variant vertebral origin: ☐ Yes ☐ No

Ascending

Asymmetric Dilatation: ☐ Yes ☐ No ☐ Unknown

Proximal coronary bypass grafts: ☐ Yes ☐ No ☐ Unknown

3-D reconstruction aortic diameter measurements available: ☐ Yes ☐ No (If Yes ↓ indicate maximal diameter for each zone in mm)

Annulus	_____mm	Zone 2	_____mm	Zone 8	_____mm
Sinus segment	_____mm	Zone 3	_____mm	Zone 9	_____mm
Sinotubular junction	_____mm	Zone 4	_____mm	Zone 10	_____mm
Mid-ascending	_____mm	Zone 5	_____mm	Zone 11	_____mm
Distal Ascending	_____mm	Zone 6	_____mm		
Zone 1	_____mm	Zone 7	_____mm		

Largest (pre-operative) diameter of treated segment(s)

Annulus	_____mm	Zone 2	_____mm	Zone 8	_____mm
Sinus segment	_____mm	Zone 3	_____mm	Zone 9	_____mm
Sinotubular junction	_____mm	Zone 4	_____mm	Zone 10	_____mm
Mid-ascending	_____mm	Zone 5	_____mm	Zone 11	_____mm
Distal Ascending	_____mm	Zone 6	_____mm		
Zone 1	_____mm	Zone 7	_____mm		

Intervention

Planned Staged Hybrid: ☐ Yes ☐ No

Open Arch Procedure: ☐ Yes ☐ No (If Yes ↓)

Distal Technique: ☐ Open ☐ Clamped

Distal Site: ☐ Ascending Aorta ☐ Hemiarch ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4

Distal Extention: ☐ Elephant trunk ☐ Frozen Elephant trunk ☐ No

Arch Branch Reimplantation: ☐ Yes ☐ No (If Yes ↓)

Innominate: ☐ Yes ☐ No Right Subclavian: ☐ Yes ☐ No Right Common Carotid: ☐ Yes ☐ No Left Common Carotid: ☐ Yes ☐ No Left Subclavian: ☐ Yes ☐ No Left Vertebral: ☐ Yes ☐ No Other: ☐ Yes ☐ No

Open Descending Thoracic Aorta or Thoracoabdominal Procedure: ☐ Yes ☐ No (If Yes ↓)

Proximal Location: ☐ Reverse Hemiarch ☐ Zone 0 ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9

Intercostal Reimplantation: ☐ Yes ☐ No

Distal Location: ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11

Visceral vessel intervention: ☐ Yes ☐ No (If Yes ↓)

Celiac: ☐ Reimplantation ☐ Branch Graft ☐ None

Superior mesenteric: ☐ Reimplantation ☐ Branch Graft ☐ None

Right Renal: ☐ Reimplantation ☐ Branch Graft ☐ None

Left Renal: ☐ Reimplantation ☐ Branch Graft ☐ None

Endovascular Procedure(s) : ☐ Yes ☐ No (If Yes ↓)

Access: ☐ Femoral ☐ Iliac ☐ Abdominal Aorta ☐ Lt. Subclavian ☐ Rt. Subclavian ☐ Ascending Aorta ☐ LV Apex

Percutaneous Access: ☐ Yes ☐ No

Proximal landing zone: ☐ Below STJ ☐ STJ-midascending ☐ Midascending to distal ascending
☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9
☐ Zone 10 ☐ Zone 11

Distal landing zone: ☐ Below STJ ☐ STJ-midascending ☐ Midascending to distal ascending
☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9
☐ Zone 10 ☐ Zone 11

TAVR (for combination procedures): ☐ Yes ☐ No

Ascending TEVAR : ☐ Dedicated IDE ☐ Off Label Stent ☐ No

Arch Vessel management

Innominate: ☐ Native Flow ☐ Endovascular Branch Graft ☐ Endovascular Parallel Graft ☐ Extra-anatomic Bypass ☐ Fenestrated

(If Extra-anatomic bypass→) Aorta-Innominate ☐ Yes ☐ No Aorta-right carotid ☐ Yes ☐ No Aorta- right subclavian ☐ Yes ☐ No
Right Carotid- Right subclavian ☐ Yes ☐ No Other ☐ Yes ☐ No

Left Carotid: ☐ Native Flow ☐ Endovascular Branch Graft ☐ Endovascular Parallel Graft ☐ Extra-anatomic Bypass ☐ Fenestrated

(If Extra-anatomic bypass→) Aorta- left carotid ☐ Yes ☐ No Innominate- left carotid ☐ Yes ☐ No
Right carotid- Left carotid ☐ Yes ☐ No Other ☐ Yes ☐ No

Left Subclavian: ☐ Native Flow ☐ Endovascular Branch Graft ☐ Endovascular Parallel Graft ☐ Extra-anatomic Bypass ☐ Fenestrated

(If Extra-anatomic bypass→) Aorta- left subclavian ☐ Yes ☐ No Left carotid- left subclavian ☐ Yes ☐ No Other ☐ Yes ☐ No

Other Arch Vessel(s) Extra-anatomic bypass: ☐ Yes ☐ No (If Yes ↓)

Innominate – carotid ☐ Yes ☐ No Innominate- subclavian ☐ Yes ☐ No
Subclavian-subclavian ☐ Yes ☐ No Other ☐ Yes ☐ No

Visceral Vessel management

Celiac: ☐ Native Flow ☐ Endovascular Branch Graft ☐ Endovascular Parallel Graft ☐ Extra-anatomic Bypass ☐ Fenestrated

(If Extra-anatomic bypass→) Aorta- celiac ☐ Yes ☐ No Iliac-celiac ☐ Yes ☐ No Other ☐ Yes ☐ No

Superior mesenteric: ☐ Native Flow ☐ Endovascular Branch Graft ☐ Endovascular Parallel Graft ☐ Extra-anatomic Bypass ☐ Fenestrated

(If Extra-anatomic bypass→) Aorta- superior mesenteric ☐ Yes ☐ No Iliac- superior mesenteric ☐ Yes ☐ No Other ☐ Yes ☐ No

Right renal: ☐ Native Flow ☐ Endovascular Branch Graft ☐ Endovascular Parallel Graft ☐ Extra-anatomic Bypass ☐ Fenestrated

(If Extra-anatomic bypass→) Aorta- right renal ☐ Yes ☐ No Iliac- right renal ☐ Yes ☐ No Other ☐ Yes ☐ No

Left renal: ☐ Native Flow ☐ Endovascular Branch Graft ☐ Endovascular Parallel Graft ☐ Extra-anatomic Bypass ☐ Fenestrated

(If Extra-anatomic bypass→) Aorta- left renal ☐ Yes ☐ No Iliac – left renal ☐ Yes ☐ No Other ☐ Yes ☐ No

Right Iliac: ☐ Native Flow ☐ Bifurcated Graft ☐ Extra-anatomic Bypass

(If Extra-anatomic bypass→) Femoral- Femoral ☐ Yes ☐ No Other ☐ Yes ☐ No

Left Iliac: ☐ Native Flow ☐ Bifurcated Graft ☐ Extra-anatomic Bypass

(If Extra-anatomic bypass→) Femoral- Femoral ☐ Yes ☐ No Other ☐ Yes ☐ No

Internal Iliac Preserved: ☐ Right Iliac only ☐ Left Iliac only ☐ Both ☐ No

Other Visceral Vessel(s) Extra-anatomic Bypass: ☐ Yes ☐ No (If Yes ↓)

Aorta-other ☐ Yes ☐ No Iliac-other ☐ Yes ☐ No Other ☐ Yes ☐ No

Dissection proximal entry tear covered: ☐ Yes ☐ No

Endoleak at end of procedure: ☐ Yes ☐ No (If Yes ↓)
Type: ☐ Ia ☐ Ib ☐ II ☐ III ☐ IV ☐ V

Conversion to open: ☐ Yes ☐ No (If Yes →) Conversion reason: ☐ Deployment failure ☐ Endoleak ☐ Rupture ☐ Occlusion/loss of branch

Intraop Dissection Extension: ☐ None ☐ Antegrade ☐ Retrograde ☐ Both

Unintentional rupture of dissection septum: ☐Yes ☐No (If Yes →) ☐ Below STJ ☐ STJ-midascending ☐ Midascending-distal ascending
☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6
☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11

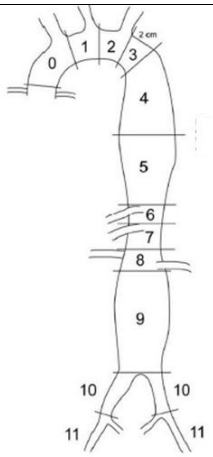
Spinal Drain Placement: ☐ Pre- aortic procedure ☐ Post- aortic procedure ☐ None

IntraOp Motor Evoked Potential: ☐ Yes ☐ No	(If Yes →) Documented MEP abnormality ☐ Yes ☐ No ☐ Unknown
IntraOp Somatosensory Evoked Potential: ☐ Yes ☐ No	(If Yes →) Documented SEP abnormality ☐ Yes ☐ No ☐ Unknown
IntraOp EEG: ☐ Yes ☐ No	(If Yes →) Documented EEG abnormality ☐ Yes ☐ No ☐ Unknown
IntraOp Intravascular Ultrasound(IVUS): ☐ Yes ☐ No	IntraOp Transcutaneous Doppler: ☐ Yes ☐ No

Intraoperative Angiogram: ☐ Yes ☐ No (If Yes →)	Volume of contrast: _____ml	Fluoroscopy time:_____ min

Devices

Device(s) Inserted: ☐ Yes ☐ No (If Yes, list proximal to distal using device key ↓)

Location :		X.	No additional devices inserted (only for locations 2 – 15)
		A.	Below sinotubular junction
		B.	Sinotubular junction to mid ascending
		C.	Mid ascending to distal ascending
		D.	Zone 1 (between innominate and left carotid)
		E.	Zone 2 (between left carotid and left subclavian)
		F.	Zone 3 (first 2 cm. distal to left subclavian)
		G.	Zone 4 (end of zone 3 to mid descending aorta ~ T6)
		H.	Zone 5 (mid descending aorta to celiac)
		I.	Zone 6 (celiac to superior mesenteric)
		J.	Zone 7 (superior mesenteric to renals)
		K.	Zone 8 (renal to infra-renal abdominal aorta)
		L.	Zone 9 (infrarenal abdominal aorta)
		M.	Zone 10 (common iliac)
		N.	Zone 11 (external iliacs)

Delivery Method:	1=Open 2= Endovascular
Outcome:	1= Maldeployed 2= Deployed and removed 3= Successfully deployed
Model Number:	Enter device model number
UDI:	Enter unique device identifier (not serial number)

Location (Letter)	Delivery Method	Outcome	Model #	UDI

M.3. Congenital Defect Repair (other than ASD, VSD or Bicuspid valve)

Congenital Diagnoses: Select up to three most significant diagnoses: (refer to "Congenital Diagnoses/Procedures List" document)
Diagnosis 1: _____ (If not "No additional congenital diagnoses"→) Diagnosis 2: _____ (If not "No additional congenital diagnoses"→)Diagnosis 3: _____

Congenital Procedures: Select up to three most significant: (refer to "Congenital Diagnoses/Procedures List" document)
Procedure 1: _____ (If not "No additional congenital procedures"→) Procedure 2: _____ (If not "No additional congenital procedures"→) Procedure 3: _____

N. Other Non-Cardiac Procedures (If Other Non-Cardiac Procedure = Yes ↓)

Carotid Endarterectomy: ☐ Yes, planned ☐ Yes, unplanned due to surgical complication
☐ Yes, unplanned due to unsuspected disease or anatomy ☐ No

Other Vascular: ☐ Yes, planned ☐ Yes, unplanned due to surgical complication
☐ Yes, unplanned due to unsuspected disease or anatomy ☐ No

Other Thoracic: ☐ Yes, planned ☐ Yes, unplanned due to surgical complication
☐ Yes, unplanned due to unsuspected disease or anatomy ☐ No

Other: ☐ Yes, planned ☐ Yes, unplanned due to surgical complication
☐ Yes, unplanned due to unsuspected disease or anatomy ☐ No

O. Post-Operative

Peak Glucose within18-24 hours of anesthesia end time:_____

Postoperative Creatinine Level: _____ Discharge Hemoglobin: _____ Discharge Hematocrit: _____

Blood Products Used Postoperatively: ☐ Yes ☐ No (If Yes ↓)
Red Blood Cell Units: _____ Fresh Frozen Plasma Units: _____ Cryoprecipitate Units: _____ Platelet Units: _____

Extubated in OR: ☐ Yes ☐ No ☐ NA
Re-intubated /or intubated Post Op During Hospital Stay: ☐ Yes ☐ No (If yes →) Additional Hours Ventilated: _____
Total post-operative ventilation hours _____(System Calculation)

ICU Visit: ☐ Yes ☐ No (If Yes →) Initial ICU Hours: _____

Readmission to ICU: ☐ Yes ☐ No (If Yes →) Additional ICU Hours: _____

Post Op Echo Performed to evaluate valve(s): ☐ Yes ☐ No (If Yes ↓)
Level aortic insufficiency found: ☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented
Aortic Paravalvular leak:
☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented
Level mitral insufficiency found: ☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented

Mitral Paravalvular leak:
☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented
Level tricuspid insufficiency found: ☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented
Level pulmonic insufficiency found: ☐ None ☐ Trivial/Trace ☐ Mild ☐ Moderate ☐ Severe ☐ Not Documented

Post Op Ejection Fraction: ☐ Yes ☐ No If Yes →) Post Op Ejection Fraction: _____ (%)

Cardiac Enzymes (biomarkers) Drawn: ☐ Yes ☐ No (If Yes →) | Peak CKMB: _____ Peak Troponin I _____ Peak Troponin T _____

12-Lead EKG Findings:
☐ Not performed ☐ No ischemic changes ☐ New ST changes ☐ New Pathological Q-wave or LBBB
☐ New RBBB ☐ New AV Conduction Block ☐ New STEMI ☐ Other ☐ NA (no pre-op EKG for comparison, transplant)

P. Postoperative Events

Surgical Site Infection within 30 days of operation: ☐ Yes ☐ No (If Yes ↓)
Sternal Superficial Wound Infection: ☐ Yes, within 30 days of procedure ☐ Yes, >30 days after procedure but during hosp. for surgery ☐ No
Deep Sternal Infection/ Mediastinitis: ☐ Yes, within 30 days of procedure ☐ Yes, >30 days after procedure but during hosp. for surgery ☐ No
(If either Yes value →) Diagnosis Date: __ __/ __ __/ __ __ __ __ (mm/dd/yyyy)
Thoracotomy: ☐ Yes, within 30 days of procedure ☐ Yes, >30 days after procedure but during hosp. for surgery ☐ No
Conduit Harvest : ☐ Yes, within 30 days of procedure ☐ Yes, >30 days after procedure but during hosp. for surgery ☐ No
Cannulation Site: ☐ Yes, within 30 days of procedure ☐ Yes, >30 days after procedure but during hosp. for surgery ☐ No
Wound Intervention/Procedure: ☐ Yes ☐ No (If Yes ↓)
Wound Intervention – Open with Packing/Irrigation: ☐ Yes, primary incision ☐ Yes, secondary incision ☐ Both ☐No
Wound Intervention – Wound Vac: ☐ Yes, primary incision ☐ Yes, secondary incision ☐ Both ☐ No
Secondary Procedure Muscle Flap: ☐ Yes, primary incision ☐ Yes, secondary incision ☐ Both ☐ No
Secondary Procedure Omental Flap: ☐ Yes ☐ No

Other <u>In Hospital</u> Postoperative Event Occurred: ☐ Yes ☐ No (If Yes ↓)

<u>Operative</u>
ReOp for Bleeding /Tamponade: ☐ Yes ☐ No (If Yes →) Bleed Timing: ☐ Acute ☐ Late
ReOp for Valvular Dysfunction: ☐ Yes, surgical ☐ Yes, transcatheter ☐ No
Reintervention for Myocardial Ischemia: ☐ Yes ☐ No
(If Yes →) Vessel: ☐ Native coronary ☐ Graft ☐ Both Intervention Type: ☐ Surgery ☐ PCI ☐ Both
Aortic Reintervention: ☐ Yes ☐ No (if yes→) Type: ☐ Open ☐ Endovascular
ReOp for Other Cardiac Reasons: ☐ Yes ☐ No
Returned to the OR for Other Non-Cardiac Reasons: ☐ Yes ☐ No
Open chest with planned delayed sternal closure: ☐ Yes ☐ No
Sternotomy Issue: ☐ Yes ☐ No (If Yes →) Sternal instability/dehiscence (sterile): ☐ Yes ☐ No

<u>Infection</u>
Sepsis: ☐ Yes ☐ No (If Yes →) Positive Blood Cultures: ☐ Yes ☐ No

<u>Neurologic, Central</u>
Postoperative Stroke: ☐ Yes, hemorrhagic ☐ Yes, ischemic ☐ Yes, undetermined type ☐ No
Transient Ischemic Attack (TIA): ☐ Yes ☐ No
Encephalopathy: ☐ None ☐ Anoxic ☐ Drug ☐ Metabolic ☐ Mixed ☐ Unknown
Coma/unresponsive state (not stroke): ☐ Yes ☐ No

<u>Neurologic, Peripheral</u>
Lower Extremity Paralysis: ☐ Yes ☐ No (If Yes →) Paralysis Type: ☐ Transient ☐ Permanent Paresis: ☐ Yes ☐ No (If Yes →) Paresis Type: ☐ Transient ☐ Permanent
Phrenic Nerve Injury: ☐ Yes ☐ No
Recurrent Laryngeal Nerve Injury: ☐ Yes ☐ No

<u>Pulmonary</u>
Prolonged Ventilation: ☐ Yes ☐ No (OR exit time until initial extubation, plus any additional reintubation hours)
Pneumonia: ☐ Yes ☐ No
Venous Thromboembolism – VTE: ☐ Yes ☐ No (If Yes ↓)
Pulmonary Thromboembolism: ☐ Yes ☐ No
Deep Venous Thrombosis: ☐ Yes ☐ No
Pleural Effusion Requiring Drainage: ☐ Yes ☐ No
Pneumothorax Requiring Intervention: ☐ Yes ☐ No

<u>Renal</u>
Renal Failure: ☐ Yes ☐ No
Dialysis (Newly Required): ☐ Yes ☐ No (If Yes →) Required after Hospital Discharge: ☐ Yes ☐ No
Duration: ☐ Temporary ☐ Permanent ☐ Unknown
Ultra-Filtration Required: ☐ Yes ☐ No

<u>Vascular</u>
Iliac/Femoral Dissection: ☐ Yes ☐ No
Acute Limb Ischemia: ☐ Yes ☐ No
<u>Mechanical assist device related complication</u> : ☐ Yes ☐ No (If Yes ↓)
Cannula/Insertion site issue ☐ Yes ☐ No
Hemorrhagic: ☐ Yes ☐ No
Thrombotic/Embolic: ☐ Yes ☐ No
Hemolytic: ☐ Yes ☐ No
Infection: ☐ Yes ☐ No

Other mechanical assist device related complication: ☐ Yes ☐ No

Other

Rhythm Disturbance Requiring Permanent Device: ☐ Pacemaker ☐ ICD ☐ Pacemaker/ICD ☐ Other ☐None

Cardiac Arrest: ☐ Yes ☐ No

Post Op Aortic Endoleak: ☐ Yes ☐ No (if yes→) Type: ☐ Ia ☐ Ib ☐ II ☐ III ☐ IV ☐ V

Aortic Rupture: ☐ Yes ☐ No

Aortic Dissection: ☐ Yes ☐ No (if yes→) Type: ☐Antegrade ☐ Retrograde ☐ Both

Aortic Side Branch malperfusion: ☐ Yes ☐ No

Aortic stent graft induced entry tear: ☐ Yes ☐ No

Anticoagulant Event: ☐ Yes ☐ No

Pericardiocentesis:: ☐ Yes ☐ No

Gastro-Intestinal Event: ☐ Yes ☐ No

Liver Dysfunction/ Failure: ☐ Yes ☐ No

Multi-System Failure: ☐ Yes ☐ No

Atrial Fibrillation: ☐ Yes ☐ No

Other: ☐ Yes ☐ No

Q. Discharge / Mortality

Date of Last Follow-up: __ __/__ __/__ __ __ __ (mm/dd/yyyy)

Status at 30 days After Surgery: ☐ Alive ☐ Dead ☐ Unknown

Primary method used to verify 30-day status:
☐ Phone call to patient or family ☐ Office visit >= 30 days after procedure
☐ Letter from medical provider ☐ Social Security Death Master File /NDI
☐ Medical record (evidence of life or death) ☐ Other

Discharge/Mortality status: ☐ In hospital, alive ☐ Discharged alive, last known status = alive
☐ Died in hospital ☐ Discharged alive, died after discharge

If Discharge/Mortality Status = "Discharged alive, last know status=alive" or "Discharged alive, died after discharge" ↓)

Discharge Date __ __/__ __/__ __ __ __ (mm/dd/yyyy)

Discharge Location: ☐ Home ☐ Extended Care/Transitional Care Unit/Rehab ☐ Other Acute Care Hospital
☐ Nursing Home ☐ Hospice ☐ Left AMA ☐ Other

Cardiac Rehabilitation Referral: ☐ Yes ☐ No ☐ Not Applicable

Smoking Cessation Counseling: ☐ Yes ☐ No ☐ Not Applicable

Medications Prescribed at Discharge

Antiplatelet	Aspirin	☐ Yes ☐ No ☐ Contraindicated
	ADP Inhibitor	☐ Yes ☐ No ☐ Contraindicated
	Other Antiplatelet	☐ Yes ☐ No ☐ Contraindicated
Anticoagulant	Thrombin Inhibitors	☐ Yes ☐ No ☐ Contraindicated
	Warfarin (Coumadin)	☐ Yes ☐ No ☐ Contraindicated
	Factor Xa inhibitors	☐ Yes ☐ No ☐ Contraindicated
	Novel Oral Anticoagulant	☐ Yes ☐ No ☐ Contraindicated
	Other Anticoagulant	☐ Yes ☐ No ☐ Contraindicated
ACE or ARB		☐ Yes ☐ No ☐ Contraindicated ☐ Not Indicated (no CHF or EF > 40%)
Amiodarone		☐ Yes ☐ No ☐ Contraindicated
Beta Blocker		☐ Yes ☐ No ☐ Contraindicated
Lipid Lowering - Statin		☐ Yes ☐ No ☐ Contraindicated
Lipid Lowering - Other		☐ Yes ☐ No ☐ Contraindicated

If Discharge/Mortality Status = "Died in hospital" or "Discharged alive, died after discharge" ↓)

Mortality - Date __ __/__ __/__ __ __ __ (mm/dd/yyyy)

Primary Cause of Death (select only one) ☐ Cardiac ☐ Neurologic ☐ Renal ☐ Vascular ☐ Infection ☐ Pulmonary ☐ Unknown ☐ Other

(If Discharge/Mortality Status = "Died in hospital↓)

In-Hospital death location: ☐ OR During Initial Surgery ☐ OR during reoperation ☐ In Hospital (Other than OR)

(If Discharge/Mortality Status = "Discharged alive, died after discharge")

Operative Death: ☐ Yes ☐ No

Post Discharge death location: ☐ Home ☐ Extended Care Facility ☐ Hospice ☐ Acute Rehabilitation ☐ Hospital during readmission
☐ Other ☐ Unknown

R. Readmission

(If Discharge/Mortality Status = "Discharged alive, last know status=alive" or "Discharged alive, died after discharge" ↓)

Readmit : ☐ Yes ☐ No ☐ Unknown (If Yes ↓)

Readmit Date: __ __/__ __/__ __ __ __ (mm/dd/yyyy)

Readmit Primary Reason:

☐ Angina	☐ Pericardial Effusion and/or Tamponade
☐ Anticoagulation Complication - Pharmacological	☐ Pericarditis/Post Cardiotomy Syndrome
☐ Anticoagulation Complication – Valvular	☐ Pleural effusion requiring intervention
☐ Aortic Complication	☐ Pneumonia
☐ Arrhythmia or Heart Block	☐ Renal Failure
☐ Blood Pressure (hyper or hypotension)	☐ Renal Insufficiency
☐ Chest pain, noncardiac	☐ Respiratory complication, Other

☐ Congestive Heart Failure
☐ Coronary Artery/Graft Dysfunction
☐ Depression/psychiatric issue
☐ DVT
☐ Electrolyte imbalance
☐ Endocarditis
☐ Failure to thrive
☐ GI issue
☐ Infection, Conduit Harvest Site
☐ Infection, Deep Sternum / Mediastinitis
☐ Mental status changes
☐ Myocardial Infarction
☐ PE
☐ Sepsis
☐ Stroke
☐ TIA
☐ Transfusion
☐ Transplant Rejection
☐ VAD Complication
☐ Valve Dysfunction
☐ Vascular Complication, acute
☐ Wound , other (drainage, cellulitis)
☐ Other – Related Readmission
☐ Other – Nonrelated Readmission
☐ Other – Planned Readmission
☐ Unknown

Readmit Primary Procedure:

☐ No Procedure Performed
☐ Cath lab for Valve Intervention
☐ Cath lab for Coronary Intervention (PCI)
☐ Dialysis
☐ OR for Bleeding
☐ OR for Coronary Artery Intervention
☐ OR for Sternal Debridement / Muscle Flap
☐ OR for Valve Intervention
☐ OR for Vascular Procedure
☐ OR for Aorta Intervention
☐ Pacemaker Insertion / AICD
☐ Pericardiotomy / Pericardiocentesis
☐ Planned noncardiac procedure
☐ Thoracentesis/ Chest tube insertion
☐ Wound vac
☐ Other Procedure
☐ Unknown

(if OR for Aorta intervention→)

Type: ☐ Open ☐ Endovascular

Indication: ☐ Rupture ☐ Endoleak ☐ Infection ☐ Dissection ☐ Expansion ☐ Loss of side branch patency ☐ Other

Adult Cardiac Anesthesiology

(for sites participating in the optional anesthesiology component)

Primary Anesthesiologist Name:

Primary Anesthesiologist National Provider Number:

Anesthesiology Care Team Model:

- ☐ Anesthesiologist working alone
- ☐ Attending anesthesiologist teaching/medically directing fellow
- ☐ Attending anesthesiologist teaching/medically directing house staff
- ☐ Attending anesthesiologist medically directing CRNA (1:4 ratio or less)
- ☐ Attending anesthesiologist medically directing CRNA (1:5 ratio or greater)
- ☐ Surgeon medically directing CRNA
- ☐ CRNA practicing independently

Pain Score Baseline:

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ Not Recorded

Algorithm to Guide Transfusion:

- ☐ Yes, SCA/STS algorithm used
- ☐ Yes, other algorithm used
- ☐ No Algorithm used

Cell Saver Volume: _____

Heparin Total Dose: _____

(If TotHep > 0 →) Heparin Management:

- ☐ Heparin titration based on activated clotting time (ACT)
- ☐ Heparin titration based on heparin concentration (e.g. Hepcon system)
- ☐ Other method

Protamine Total Dose: _____

Antithrombin III Total Dose: _____

Viscoelastic Testing Used Intraop: ☐ Yes ☐ No

Volatile Agent Used: ☐ Yes ☐ No

(If Yes →) Volatile Agent(s) used:

Isoflurane	☐ Yes ☐ No	Desflurane	☐ Yes ☐ No		
Sevoflurane	☐ Yes ☐ No	Other	☐ Yes ☐ No		

Volatile Agent(s) timing:

Pre CPB	☐ Yes ☐ No	During CPB	☐ Yes ☐ No
Post CPB	☐ Yes ☐ No	Maintenance (if no CPB)	☐ Yes ☐ No

Intraop Infusion Dexmedetomidine: ☐ Yes ☐ No

Intraop Infusion Propofol: ☐ Yes ☐ No

Intraop Mgs Midazolam: _____

Intraop Insulin Total Dose: _____

Pre Induction Systolic BP: _____

Pre Induction Diastolic BP: _____

Pre Induction Mean BP: _____

Pre Induction Heart Rate: _____

Pulmonary Artery Catheter Used: ☐ Yes ☐ No

Core Temperature Source:

- ☐ Esophageal ☐ Nasopharyngeal ☐ Tympanic
- ☐ Bladder ☐ PA Catheter Thermistor ☐ Rectal

Core Temp Max: _____

Intra Op Nitric Oxide: ☐ Yes ☐ No

Anesth. Total Crystalloid: _____

Anesth. Synthetic Colloid _____

Anesthesiology Total Albumin: _____

Intraop Glucose Trough: _____

Intraop Vasodilators Used: ☐ Yes ☐ No

Intraoperative Processed EEG (BIS): ☐ Yes ☐ No

Intraop Transesophageal Echo (TEE): ☐ Yes ☐ No

(If Pre Proc TEE is Yes→)

Pre-procedure LVEF Measured: ☐ Yes ☐ No (If Yes→) LVEF: _____

Pre-procedure RV Function:	☐ Normal ☐ Mild Dysfunction	☐ Moderate Dysfunction ☐ Severe Dysfunction	☐ Not Assessed
Mitral Regurgitation:	☐ None ☐ Trace/trivial	☐ Mild ☐ Moderate	☐ Severe ☐ Not assessed
Mitral Stenosis:	☐ None ☐ Mild	☐ Moderate ☐ Severe	☐ Not Assessed
Aortic Regurgitation:	☐ None ☐ Trace/trivial	☐ Mild ☐ Moderate	☐ Severe ☐ Not assessed
Aortic Stenosis:	☐ None ☐ Mild	☐ Moderate ☐ Severe	☐ Not Assessed

Aortic Valve Area Assessed:	☐ Yes ☐ No (If Yes→)	Aortic Valve Area:	_____
Tricuspid Regurgitation:	☐ None	☐ Mild	☐ Severe

	☐ Trace/trivial ☐ Moderate ☐ Not assessed	
	Patent Foramen Ovale: ☐ Yes ☐ No ☐ Not assessed	
	Ascending Aorta Assessed ☐ Yes ☐ No	
	(If Yes→) Maximal Ascending Aorta Diameter: _____	
	(If Yes→) Maximal Ascending Aorta Atheroma Thickness: _____	
	Ascending Aorta Atheroma Mobility: ☐ Yes ☐ No	
	Aortic Arch Visualized: ☐ Yes ☐ No	
	(If Yes→) Maximal Aortic Arch Atheroma Thickness: _____	
	Aortic Arch Atheroma Mobility: ☐ Yes ☐ No	
Cardiopulmonary Bypass Used: ☐ Yes ☐ No		
(If CPB Use is Yes→)	Retrograde Autologous Priming of CPB Circuit: ☐ Yes ☐ No	
	Total Crystalloid Administered by Perfusion Team: _____	
	Total Synthetic Colloid Administered by Perfusion Team: _____	
	Total Albumin Administered by Perfusion Team: _____	
	Hemofiltration Volume Removed by Perfusion Team: _____	
	Inotropes used to wean from CPB: ☐ Yes ☐ No	
	Vasopressors used to wean from CPB: ☐ Yes ☐ No	
Post-Procedure Use Of Intraoperative TEE: ☐ Yes ☐ No		
(If Post Proc TEE is Yes→)	Systolic Anterior Motion of Mitral Valve: ☐ Yes ☐ No ☐ Not assessed	
	Return to CPB for Echo Related Diagnosis: ☐Yes ☐ No	
	Post-Procedure LVEF Measured: ☐ Yes ☐ No	
	(If Yes→) Post-Procedure LVEF: _____	
	Post-Procedure RV Function: ☐ Normal ☐ Moderate Dysfunction ☐ Not Assessed ☐ Mild Dysfunction ☐ Severe Dysfunction	
Intraoperative cardiac arrest related to anesthesia care: ☐ Yes ☐ No		
Patient Died in the OR: ☐ Yes ☐ No		
(If OR Death is No→)	Core Temp Measured upon Entry to ICU/PACU: ☐ Yes ☐ No	
	(If Yes→) Post Op Core Temp: _____	
	Post-Op INR Measured upon admission to post op care location (PACU, ICU): ☐ Yes ☐ No	
	(If Yes→) INR: _____	
	WBC Measured upon admission to post op care location (PACU, ICU): ☐ Yes ☐ No	
	(If Yes→) WBC : _____	
	Platelets Measured upon admission to post op care location (PACU, ICU): ☐ Yes ☐ No	
	(If Yes→) Platelet Count: _____	
	Hematocrit Measured upon admission to post op care location (PACU, ICU): ☐ Yes ☐ No	
	(If Yes→) Hematocrit: _____	
	Fibrinogen Measured upon admission to post op care location (PACU, ICU): ☐ Yes ☐ No	
	(If Yes→) Fibrinogen _____	
	Lactate Measured upon admission to post op care location (PACU, ICU): ☐ Yes ☐ No	
	(If Yes→) Lactate: _____	
	Post Op Dexmedetomidine: ☐ Yes ☐ No	
	Post Op Propofol: ☐ Yes ☐ No	
	Post Op Delirium: ☐ Yes ☐ No	

Post Op Heparin Induced Thrombocytopenia: ☐ Yes ☐ No
Pain Score POD #3: ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ Not recorded ☐ NA
Pain Score Discharge: ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ Not recorded ☐ NA